

Great Basin Unified  
Air Pollution Control District

**DRAFT**

2009  
Ambient Air Monitoring Network Plan

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## **1.0 Introduction**

An annual review of all national air quality monitoring networks is required by Federal regulations as a means to identify needs for addition, relocation, or termination of monitoring stations or instrumentation. The annual Air Quality Monitoring Network Plan prepared by the California Air Resources Board (CARB) in the past has included the area within the Great Basin Unified Air Pollution Control District (District). However, over the past year the District has begun the process of becoming a primary quality assurance organization and is, therefore, required to prepare its own plan and submit it to the U.S. Environmental Protection Agency (EPA). This report describes the network of ambient air quality monitors to be operated by the District during the 2009 calendar year. It includes a review of actions taken in the monitoring network during the 2008-2009 fiscal year and plans for actions in the years ahead. This draft plan addresses the requirements for an annual network plan as listed in the Code of Federal Regulations, Title 40, Part 58, Section 10 (40 CFR 58.10). These regulations require that the report be submitted to the EPA by July 1 of each year after a 30-day public comment period.

The District staff, along with the CARB and EPA Region IX conducted a review of the air monitoring stations throughout the District in 2007. State and Local Air Monitoring Station (SLAMS) designations, monitoring objectives, and spatial scales of representativeness were assigned to the criteria pollutants monitored by site. Each year, District staff conducts an annual review of the air monitoring network to evaluate whether the current monitoring strategies are meeting the needs of the District, to determine compliance with all current Federal and State regulations, and to aid in the development of future monitoring strategies. When monitoring station additions or relocations are warranted, site reports are written and/or updated in the EPA's Air Quality System (AQS) database to document compliance with established monitoring criteria.

## **2.0 Public Comments**

Pursuant to Federal regulations, this draft plan is to be made available for public inspection and comment for at least 30 days prior to submission to the EPA. Notice of availability of the document was published in local newspapers and the document was posted to the District's website ([www.gbupcd.org](http://www.gbupcd.org)) on February 27, 2009, under the link, "Current Events." The draft document was also made available to the EPA during the review period. The public review period provides an opportunity for the public, the EPA, and any other interested parties to provide comments on the plan. Comments received will be included in the plan. Following the review period ending March 31, 2009, the plan will be submitted to EPA for approval of any SLAMS network changes.

## **3.0 Network Design**

The District operates eighteen (18) air quality monitoring stations in four planning areas and in the general environs of the District's three counties: Alpine, Inyo, and Mono. The planning areas in the District are: Searles Valley, Southern Owens Valley, Mono Basin, and Mammoth Lakes. Figures 1 - 3 present maps of the entire District showing the planning areas, all of which are

PM<sub>10</sub> nonattainment areas, and all of the monitoring stations currently in operation as well as those scheduled to be installed this year. Table 1 provides a list of the monitoring stations, the pollutants measured at each station, the EPA Air Quality System (AQS, the EPA's national air quality data base) site codes, and the start date for the station.

Table 2 provides the monitoring objective and spatial scale for each monitor at each site. Table 3 provides the monitoring purpose for each monitor at each site, providing the reason for measuring a specific pollutant at a given site. A list of the monitoring purposes and a description of them is provided in this document. Portions of these monitoring purposes and their descriptions are adapted from the ARB annual network plan for 2007.

After consultation with the District Board and District monitoring specialists, the APCO determines monitoring locations in the District, as delegated by the ARB. Monitoring locations and monitors are then added to or removed from the network monitoring plan that is assembled and presented annually to the public for comment. This plan is then submitted to EPA for review. The EPA Region IX administrator has the final authority on the configuration of the monitoring network.

Figure 1. Great Basin Unified Air Pollution Control District Map

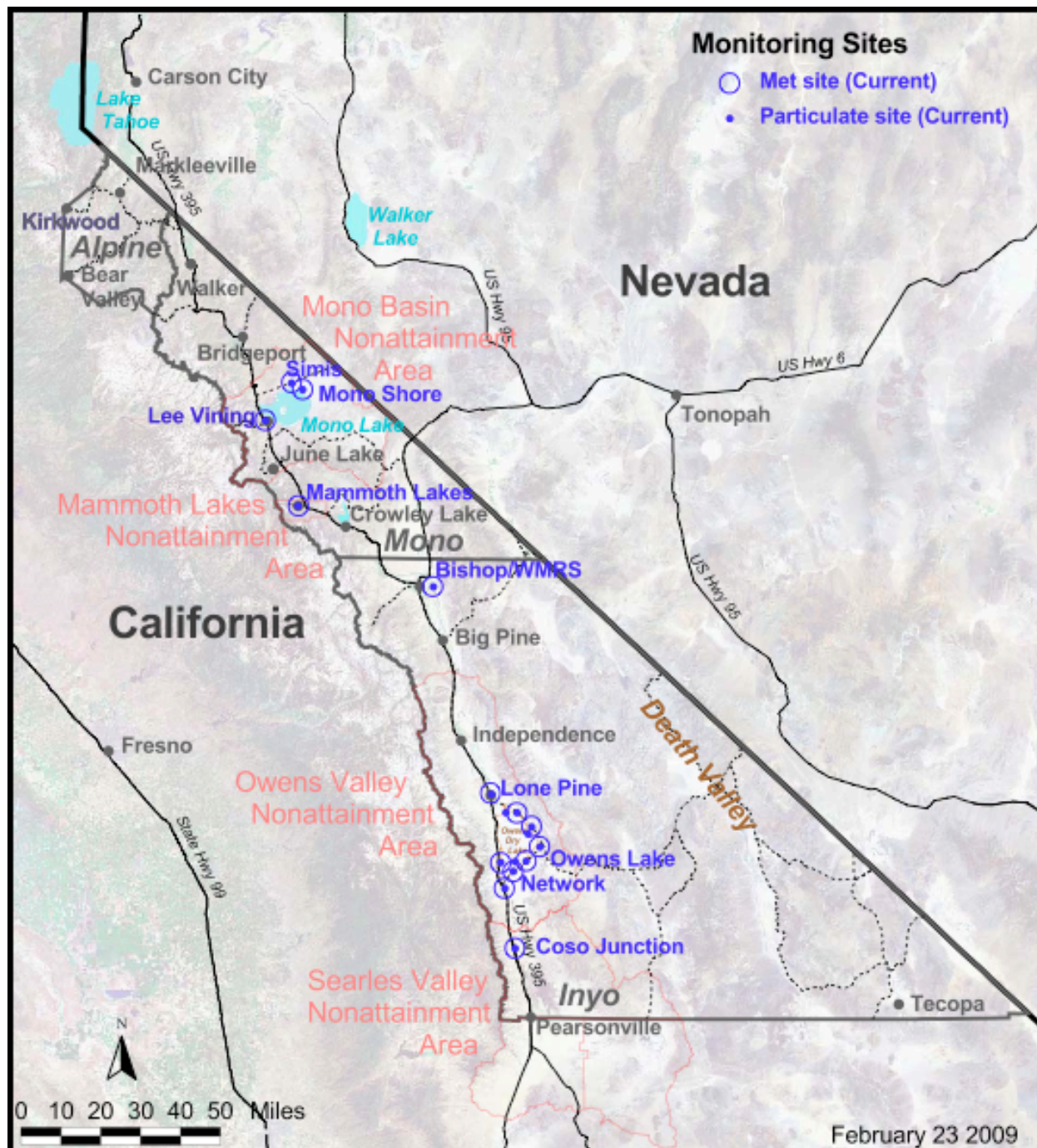


Figure 2. Great Basin Unified Air Pollution Control District Map, Owens Lake detail

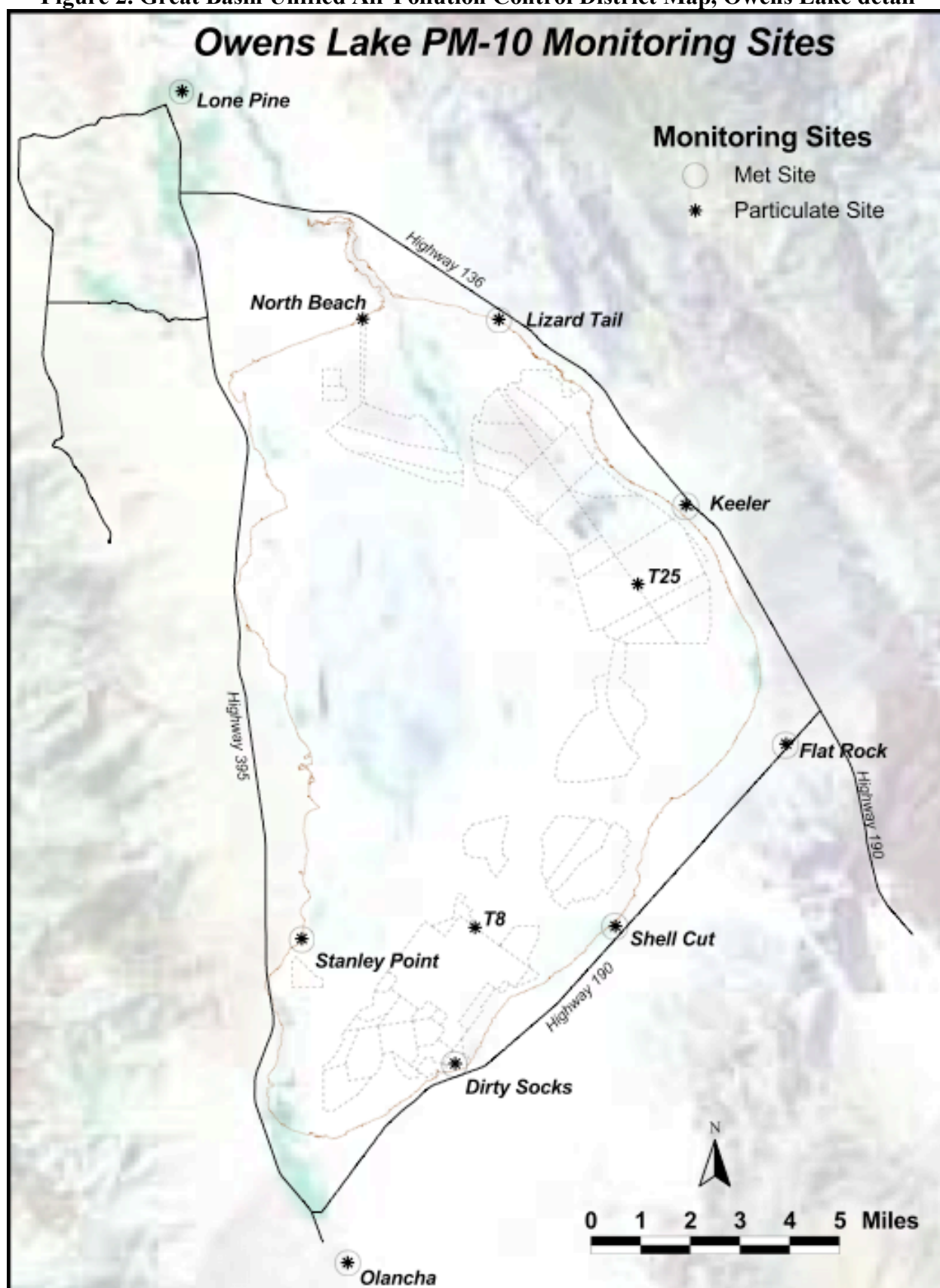
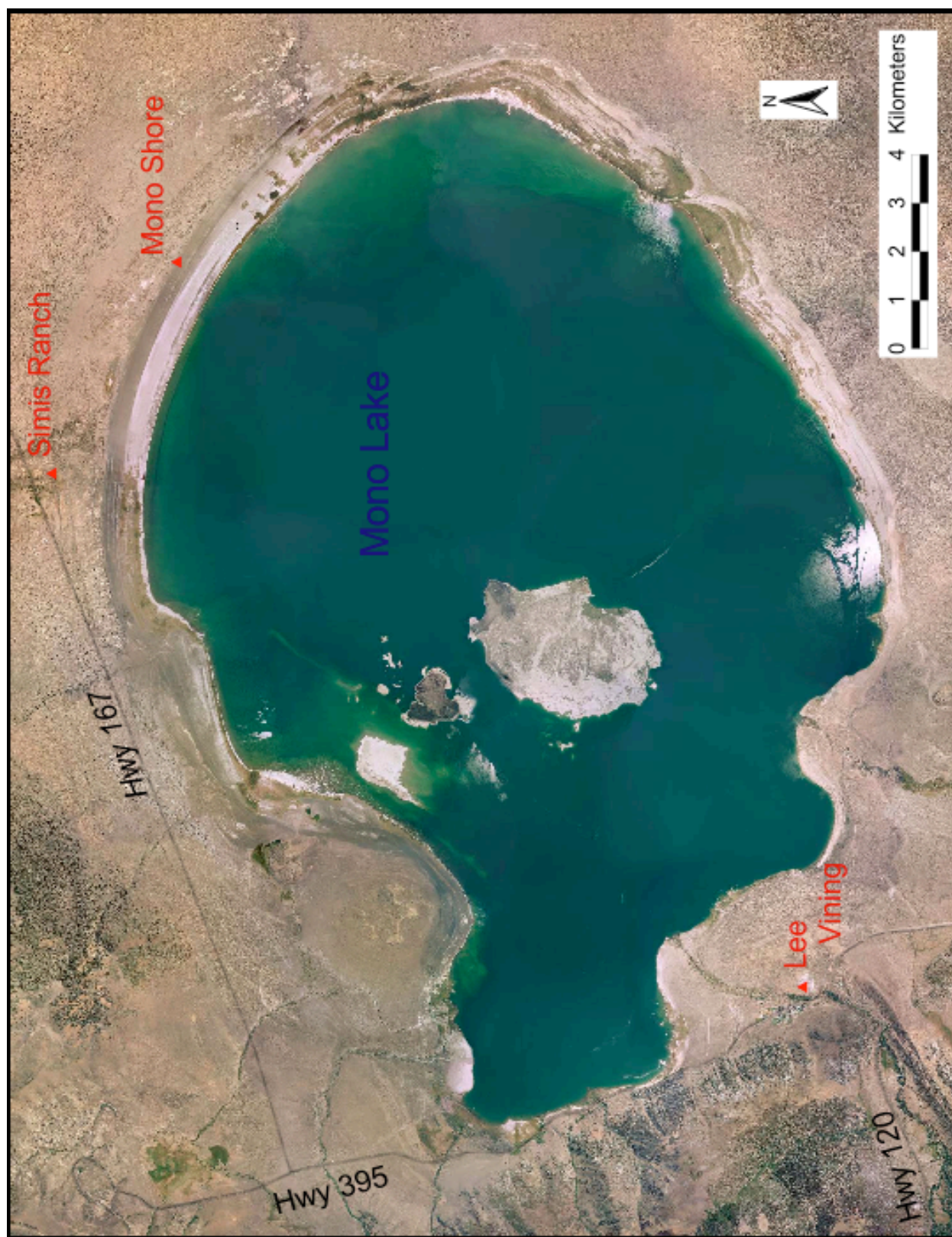




Figure 3. Great Basin Unified Air Pollution Control District Map, Mono Lake detail



**Table 1. List of Monitoring Sites and Variables Monitored**

Site Name	Network	AQS Number	Pollutants Monitored	Start Date
Dirty Socks	Owens Lake	06-027-0022	PM10	Jun-99
Shell Cut	Owens Lake	06-027-0025	PM10	Jan-01
Flat Rock	Owens Lake	06-027-0024	PM10	Jan-01
Bill Stanley	Owens Lake	06-027-0026	PM10	Mar-02
Olancho	Owens Lake	06-027-0021	PM10	Aug-95
Lone Pine	Owens Lake	06-027-0004	PM10	Jan-80
North Beach	Owens Lake	06-027-1029	PM10	Nov-08
Lizard Tail	Owens Lake	06-027-0028	PM10	Feb-08
Keeler	Owens Lake	06-027-1003	PM10, PM2.5	Jul-94
T-8	Owens Lake	N/A	PM10	Apr-08
T-25	Owens Lake	N/A	PM10	Apr-08
Coso Junction	Owens Lake	06-027-1001	PM10	Mar-79
Mammoth Lakes	Mammoth Lakes	06-051-0001	PM10	Apr-84
Lee Vining	Mono Basin	06-051-0005	PM10	Jan-81
Simis Residence	Mono Basin	06-027-0007	*	
Mono Shore	Mono Basin	06-027-0011	PM10	Jan-00
White Mountain**	District	06-027-0002	PM10	4/1/2006***
NCORE	District	TBD	CO, SO <sub>2</sub> , NO <sub>y</sub>	TBD

\* PM10 monitoring ended August 2008. Station is currently used for meteorological monitoring only.

\*\* District's Portable Monitoring Station berth.

\*\*\* Portable Monitoring Station returned to berth June 2008, after a one-year monitoring project in Tecopa, California.



**Table 2. Criteria Pollutant Monitoring Objective and Spatial Scales**

MONITORING OBJECTIVE

SPATIAL SCALE

HC - High Concentration

MI - Microscale

RC - Representative Concentration

MS - Middle Scale

IM - Source Impact

NS - Neighborhood Scale

BL - Background Level

US - Urban Scale

RT - Regional Transport

RS - Regional Scale

WI - Welfare Impacts, e.g. Visibility,  
Vegetation, etc.

Site Name	Network	PM10	PM2.5
Dirty Socks	Owens Lake	RC/NS	RC/NS
Shell Cut	Owens Lake	RC/NS	
Flat Rock	Owens Lake	RC/NS	
Bill Stanley	Owens Lake	RC/NS	
Olancho	Owens Lake	RC/NS	
Lone Pine	Owens Lake	RC/NS	
North Beach	Owens Lake	RC/NS	
Lizard Tail	Owens Lake	RC/NS	
Keeler	Owens Lake	RC/NS	
T-8	Owens Lake	HC/NS	
T-25	Owens Lake	HC/NS	
Coso Junction	Owens Lake	RC/NS	
Mammoth Lakes	Mammoth Lakes	RC/NS	
Lee Vining	Mono Basin	RC/NS	
Simis Residence	Mono Basin	*	
Mono Shore	Mono Basin	HC/NS	
White Mountain**	District	RC/NS	
NCORE	District	RC/RS	

\* PM10 monitoring ended August 2008. Station is currently used for meteorological monitoring only.

\*\* District's Portable Monitoring Station berth. Station returned to berth June 2008, after a one-year monitoring project in Tecopa, California.

**Table 3. Criteria Pollutant Monitoring Purposes**

MONITORING PURPOSE

BK - Background Level  
 HC - High Concentration  
 TP - Pollutant Transport  
 EX - Population Exposure  
 SPM - Special Purpose Monitor

RC - Representative Concentration  
 SO - Source Impact  
 TR - Trend Analysis  
 CP - Site Comparison

Site Name	Network	PM10	PM2.5
Dirty Socks	Owens Lake	RC/SO	RC/EX
Shell Cut	Owens Lake	RC/SO	
Flat Rock	Owens Lake	RC/SO	
Bill Stanley	Owens Lake	RC/SO	
Olancho	Owens Lake	RC/EX	
Lone Pine	Owens Lake	RC/EX	
North Beach	Owens Lake	RC/SO	
Lizard Tail	Owens Lake	RC/SO	
Keeler	Owens Lake	RC/EX	
T-8	Owens Lake	HC/SO	
T-25	Owens Lake	HC/SO	
Coso Junction	Owens Lake	RC/TP	
Mammoth Lakes	Mammoth Lakes	RC/EX	
Lee Vining	Mono Basin	RC/EX	
Simis Residence	Mono Basin	*	
Mono Shore	Mono Basin	HC/EX	
White Mountain**	District	RC/EX	
NCORE	District	RC/BK	

\* PM10 monitoring ended August 2008. Station is currently used for meteorological monitoring only.

\*\* District's Portable Monitoring Station berth.

## Definitions

**Background Level** monitoring is used to determine general background levels of air pollutants.

**High Concentration** monitoring is conducted at sites to find the highest concentrations of an air pollutant in an area within a given monitoring network. A monitoring network may have multiple high concentration sites as a result of varying meteorology, source area variability, etc.

**Metropolitan Statistical Area (MSA)** is defined by the Office of Management and Budget and by the EPA as a geographical area having at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.

**Monitoring Objectives** are the measures for determining the level of impact of pollutants from particular sources at particular sites, i.e., to determine the high concentrations (HC) affecting specific places from sources, the representative concentrations (RC) or overall impact of sources in a given area, the impact (IM) caused by maximum concentrations affecting specific places, and background level (BL) concentrations measured upwind of a specific sources.

**Monitoring Planning Area (MPA)** is defined by the EPA as a contiguous geographic area with established, well-defined boundaries, such as a metropolitan statistical area, county, or State, having a common area that is used for planning monitoring locations for PM<sub>2.5</sub>. MPAs may cross political boundaries, e.g., State, County, etc. MPAs are generally oriented toward areas with populations greater than 200,000.

**Monitoring Purpose** is the reason for conducting monitoring at a particular location. There is some crossover with monitoring objectives, however, they relate specifically to the pollutant, whereas monitoring purposes relate to the effects of the pollutants on populations or resources. Monitoring purposes include: background level (BK), high concentration (HC), representative concentration (RC), and source impact (SO), all of which are similarly defined as the similarly named objectives above. Additional monitoring purposes include: pollutant transport (TP) where pollution from one region or district is carried to another by the winds; population exposure (EX) where a site is located specifically for determining the pollutant exposure level of a particular population; special purpose monitor (SPM) is one that is set in place for a short-term study; trend analysis (TR) sites are those sites that have collected data over a time period sufficient to determine particular trends, e.g. seasonal variations, etc.; site comparison (CP) indicates sites used to compare variability of pollutant impacts between the sites.

**Nonattainment Area** is any area that does not attain the standard for at least one of the pollutants for which there are National Ambient Air Quality Standards (NAAQS).

**Pollutant Transport** is the movement of pollutant(s) between air basins or areas within an air basin. Transport monitoring is used to assess upwind areas when transported pollutant(s) affect neighboring downwind areas. Transport monitoring is also used to determine the extent of regional pollutant transport.

**Population Exposure** monitoring is conducted to represent the air pollutant concentrations to which a populated area is exposed.

**Representative Concentration** monitoring is conducted to determine pollutant concentrations over a homogeneous geographical area. These sites do not necessarily indicate the highest concentrations in an area for a particular pollutant.

**Source Impact** monitoring is used to determine the impact of particular and significant sources of pollutant emissions on the air quality. Air pollutant sources may be stationary or mobile.

**Spatial Scales** define the concentrations within a given area that has relatively uniform land use and reasonably homogeneous geography. These scales are defined as follows:

**Microscale** - defines an area with dimensions ranging from several meters up to about 100 meters (several yards up to 100 yards).

**Middle Scale** - defines an area of up to several city blocks in size, with dimensions ranging from about 100 meters to 0.5 kilometers (100 yards to 1/3 mile)

**Neighborhood Scale** - defines an area with dimensions in the 0.5 to 4.0 kilometer range (1/3 mile to 2.5 miles). Most of the District's sites have been determined to be neighborhood scale sites.

**Urban Scale** - defines an area with dimensions on the order of 4 to 50 kilometers (2.5 miles to 30 miles).

**Regional Scale** - usually defines rural areas and extends from tens to hundreds of kilometers (or miles).

**National and Global Scale** - these measurement scales represent pollutant concentrations characterizing the nation and the globe as a whole.

**Trend Analysis** monitoring is useful for comparing and analyzing air pollution concentrations over time. Trend analysis can show the progress or lack thereof in improving the air quality for a given area over a period of many years.

**Site Comparison** monitoring is used to assess the effect of moving a monitoring location a short distance (approximately 2 miles or less) on measured pollutant levels. Some monitoring stations become unusable due to development, change of lease terms, eviction, etc. In these cases, attempts are made to conduct concurrent monitoring at both the old and new monitoring locations for a period of time in order to compare pollutant concentrations at both.

Multiple purposes for monitoring a pollutant at a particular site are possible. There is some overlap between monitoring objectives as defined by EPA, presented in Table 2, and the monitoring purposes presented in Table 3.

A brief description of the network for each criteria pollutant monitored is provided here. See Appendix A for a summary of the information for each site.

#### **PM<sub>10</sub>**

Medium-volume size selective inlet filter-based PM<sub>10</sub> monitors (Rupprecht & Patashnick Partisol Plus 2025 or BGI PQ200) are operated at three (3) sites. Monitoring at the sites is conducted on either the Federal one-in-three-day schedule or on a daily schedule. Filter-based monitors typically measure 24-hour PM<sub>10</sub> concentrations.

Continuous PM<sub>10</sub> monitors (Rupprecht & Patashnick TEOM 1400a AB monitors) are jointly-operated with filter-based monitors at two of the three filter-based sites. Continuous PM<sub>10</sub> monitors alone are operated at an additional 13 sites. The advantage of continuous PM<sub>10</sub> monitors is that they are capable of measuring hourly pollutant concentrations. These continuous monitors are concentrated in areas of high PM<sub>10</sub> impact: e.g. around the shoreline of Owens Lake, in the Town of Mammoth Lakes, at the site of maximum impact on the north shore of Mono Lake. Hourly resolution of PM<sub>10</sub> concentrations enables the District to more accurately determine the source of the emissions, especially in wind event driven emissive areas like Owens and Mono Lakes.

#### **PM<sub>2.5</sub>**

The District operates one collocated PM<sub>2.5</sub> monitor at the Keeler monitoring site. The monitors are medium volume filter-based Federal Equivalent Method samplers (Rupprecht & Patashnick Partisol Plus 2025 with a very sharp-cut cyclone (VSCC) for PM<sub>2.5</sub>). The primary monitor operates on the Federal 1-in-3-day schedule and the collocated monitor operates on the Federal 1-in-12-day collocated sampling schedule.

#### **Meteorology**

The District operates meteorological sensors at nearly all permanent monitoring stations. Meteorological variables measured include wind speed, wind direction and ambient temperature. In addition, at some locations relative humidity, barometric pressure and precipitation are also measured.

### **4.0 Special Programs**

The District periodically conducts special monitoring programs for rule compliance and pollutant level assessment. The data gathered are for informational purposes initially and may lead to designation of special purpose monitors, as defined under Title 40 CFR 58.20, or to permanent monitoring locations in the District's network, or to nothing beyond the initial purpose of information gathering. During the 2009 monitoring year, the District will operate the special programs listed below.



### **On-Lake PM<sub>10</sub> Monitor Intercomparison Study**

The District began a study in February 2009 in the southern portion of Owens Lake, at the T-8 station, in order to compare several different types of PM<sub>10</sub> monitors. These monitors include: one TEOM 1400ab, one BGI PQ200, three Met One eSamplers, and three TSI DustTraks. The purpose of the study is to determine the viability of utilizing smaller, more portable PM<sub>10</sub> monitors for episodic monitoring of PM<sub>10</sub> on and around the lakebed in order to more accurately ascertain emissive area locations and their impacts.

### **Tecopa PM<sub>10</sub> Impacts Study**

The District conducted a short-term air quality monitoring program in the southeast Inyo County community of Tecopa, monitoring PM<sub>10</sub> concentrations in the Tecopa Hot Springs area from May 2007 through June 2008. Local citizens were concerned with dust emissions from outlying Off-Highway Vehicle areas, as well as local wind-blown dust emissions. District staff responded to these concerns by installing a monitoring station that collected data for PM<sub>10</sub> (both filter-based and continuous), wind speed, wind direction, temperature, and relative humidity. The data collected showed seven violations of the California State PM<sub>10</sub> standard of 50µg/m<sup>3</sup> over the yearlong monitoring period. No violations of the Federal PM<sub>10</sub> standard of 150µg/m<sup>3</sup> were measured during the monitoring period. It was determined that the particulate matter measured was the result of wind-blown dust from local naturally-occurring sources on public lands, including exposed lakebed and riverbed playa areas around the community of Tecopa, with some contribution from the Bureau of Land Management Dumont Dunes OHV area.

### **Community Woodsmoke Study**

In 2003, the California legislature passed S.B. 656 requiring local air pollution control districts to begin working toward meeting California's particulate matter air pollution standards. In response to the new requirements, the District revised its regulations regarding wood smoke and fugitive dust. However, in order to determine whether the revised regulations apply in communities where normal PM<sub>10</sub> monitoring does not take place, special monitoring data need to be gathered. The District selects one or two communities in which to monitor PM<sub>10</sub> concentrations during each winter season, since winter is typically the season of highest PM concentrations.

Filter-based medium-volume PM<sub>10</sub> monitors (Rupprecht & Patashnick Partisol Plus 2025) are placed in communities generally from October through April. These monitors are operated on a daily sampling schedule in order to maximize data capture for the monitoring period. During the 2007-2008 winter season, the District operated a filter-based PM<sub>10</sub> monitor in the community of Crowley Lake in Mono County, and in the community of Kirkwood in Alpine County. One exceedance of the California PM<sub>10</sub> standard of 50µg/m<sup>3</sup> was measured in each community. No exceedances of the

Federal PM<sub>10</sub> standard of 150 µg/m<sup>3</sup> were measured in either community during the study period. The highest measured 24-hour PM<sub>10</sub> concentration at Crowley Lake was 64 µg/m<sup>3</sup>. The highest concentration measured in Kirkwood was 59 µg/m<sup>3</sup>.

No community PM<sub>10</sub> monitoring was planned for the 2008-2009 winter season.

## **5.0 Recent or Proposed Modifications to Network**

### **Owens Lake**

The District completed installation of an additional monitor in the Owens Lake network, designated North Beach, near the delta area on the north end of the lake in November 2008. Variables monitored at the North Beach station include continuous PM<sub>10</sub> monitored with an R&P TEOM 1400ab. Meteorological variables, including wind speed, wind direction and ambient temperature, are measured at the Delta meteorological monitoring station approximately 2 miles south of the North Beach station. The North Beach station will be a permanent addition to the Owens Lake network, as agreed between the District and the City of Los Angeles Department of Water & Power.

Two on-lake PM<sub>10</sub> monitoring stations were installed in April 2008. Each of these stations, designated as T-8 and T-25, consists of one TEOM 1400ab continuous PM<sub>10</sub> monitor in a temperature-controlled shelter. The purpose of these monitors is to measure PM<sub>10</sub> emissions near the remaining source areas on the lakebed. These special purpose monitors will be operated through the first quarter of 2010.

Installation of collocated continuous PM<sub>10</sub> monitors and a continuous PM<sub>2.5</sub> monitor at the Keeler monitoring station as described in the 2008 Monitoring Plan was delayed. These installations will be completed during the 2009, monitoring year.

### **Mammoth Lakes**

The District successfully installed a filter dynamics measurement system (FDMS) on the existing Rupprecht & Patashnick 1400a AB tapered element oscillating microbalance (TEOM) continuous PM<sub>10</sub> monitor in the Town of Mammoth Lakes monitoring station in October 2008. The District had installed two different FDMS units on the PM<sub>10</sub> TEOM during 2007 and both had malfunctioned. The District also operates a Rupprecht & Patashnick Partisol Plus Model 2025 Federal Reference Method (FRM) medium volume sequential filter PM<sub>10</sub> monitor operating on the Federal one-in-three-day schedule at the Mammoth site.

### **Mono Lake**

The District has operated monitoring stations in the Mono Basin area for approximately 15 years. Over the last year, District staff assessed the Mono Lake monitoring network and determined that some changes needed to be made. First, staff determined it was necessary to collect hourly-resolved PM<sub>10</sub> data at the Mono Lake North Shore site, especially during the episodic dust storms at the Lake. Second, it was determined that staff needed to operate the network and utilize resources more efficiently.

In order to address the first determination, a continuous TEOM PM<sub>10</sub> monitor was installed in May 2008 at the Mono Lake North Shore site to facilitate the collection of hourly-resolved PM<sub>10</sub> data. An additional goal was set for the Mono Shore site to operate the continuous PM<sub>10</sub> monitor through the entire year, rather than seasonally as had been done with the filter-based monitors.

In addressing the second determination, staff noted that no PM<sub>10</sub> violations had been measured at the Simis Ranch site since August 31, 1996. The District had collected 12 years of data subsequent to that measured violation. As a result, the decision was made to cease the collection of PM<sub>10</sub> data at the Simis Ranch site as of August 2008.

The North Shore site is off the power grid and consists of a large solar power array and battery system. In order to minimize power consumption, the TEOM is housed in a custom-designed Zomeworks Cool Cell. The Cool Cell regulates the temperature of the Cell housing the TEOM passively using a water-based radiator and reservoir system. The continuous monitor and the seasonally (non-winter) operating filter-based medium volume PM<sub>10</sub> monitors (BGI PQ200) were operated side-by-side from May through August 2008 in order to provide comparison data between the two different monitoring methods. After that comparison period, the filter-based monitors were shut down and removed from service, leaving the continuous PM<sub>10</sub> monitor as the primary monitor for that station.

Future changes to the Mono Lake network include the installation of a continuous TEOM PM<sub>10</sub> monitor in the community of Lee Vining. The District has operated a filter-based PM<sub>10</sub> monitor in Lee Vining, located on the southwest side of Mono Lake, for over 15 years. Plans to install a continuous TEOM PM<sub>10</sub> monitor at the Lee Vining station in 2008 were delayed. The District plans to complete the installation of the continuous TEOM PM<sub>10</sub> monitor and remove the filter-based PM<sub>10</sub> monitor from service during 2009.

#### **National Core Multipollutant Monitoring Station (NCORE)**

The District was chosen by EPA Region IX staff to install and operate one of the EPA NCORE monitoring stations. The NCORE network consists of 75 monitoring stations around the nation that will be used by EPA for determining national monitoring and regulatory strategies. Seven monitoring stations are to be placed in California and the District has been chosen to operate one of them: a rural NCORE site. These sites will be funded by EPA for capital equipment and operation and maintenance.

The first phase of funding began with the 2008 calendar year. Funds have been received for the procurement of the first-phase monitoring equipment which includes: a low-level carbon monoxide monitor (CO), a low-level sulfur dioxide monitor (SO<sub>2</sub>), a low-level oxides of nitrogen monitor (NO<sub>y</sub>), and a calibration system for the monitors. The EPA Region IX staff has also provided the District with a monitoring station on long-term loan to the District in which to house the NCORE monitoring equipment. The District has proposed the NCORE site be located at the White Mountain Research Station, east of Bishop, near the current berth of the District's Portable Monitoring Station. Final approval of the site by EPA headquarters will be given by mid-2009. Installation of the station and procurement and installation of the equipment are scheduled for mid-2009.

## 6.0 Minimum Monitoring Requirements

The District's jurisdictional boundaries encompass no Metropolitan Statistical Areas (MSA) as defined by the U.S. Office of Management and Budget and the U. S. Census Bureau. The District does, however, contain Monitoring Planning Areas defined as "areas determined to be (potentially) in violation of the PM<sub>2.5</sub> NAAQS." The District is also required to operate at least one monitor in each of the four (4) PM<sub>10</sub> nonattainment areas. The District exceeds the minimum monitoring requirements for criteria pollutants as detailed below.

### **PM<sub>10</sub>**

<u>Nonattainment Area Monitors</u>	<u>Min. No. Monitors Required</u>	<u>No. of Monitors Active</u>
Searles Valley	1	1
Owens Lake	1	11
Mammoth Lakes	1	2
Mono Basin	1	2

### **PM<sub>2.5</sub>**

<u>MPA</u>	<u>Min. No. Monitors Required</u>	<u>No. of Monitors Active</u>
Keeler	1	1+1 collo.

## **APPENDIX A**

### **Site Information Summary**



Great Basin Unified Air Pollution Control District  
Site Specific Information

Site Name	Network	AQS Number	Pollutants Monitored	Start Date
Dirty Socks	Owens Lake	06-027-0022	PM10, Met.	Jun-99
Shell Cut	Owens Lake	06-027-0025	PM10, Met.	Jan-01
Flat Rock	Owens Lake	06-027-0024	PM10, Met.	Jan-01
Bill Stanley	Owens Lake	06-027-0026	PM10, Met.	Mar-02
Olancho	Owens Lake	06-027-0021	PM10, Met.	Aug-95
Lone Pine	Owens Lake	06-027-0004	PM10, Met.	Jan-80
North Beach	Owens Lake	06-027-0029	PM10, Met.	Nov-08
Lizard Tail	Owens Lake	06-027-0028	PM10, Met.	Feb-08
Keeler	Owens Lake	06-027-1003	PM10, PM2.5, Met.	Jul-94
T-8	Owens Lake	NA	PM10	Apr-08
T-25	Owens Lake	NA	PM10	Apr-08
Coso Junction	Owens Lake	06-027-1001	PM10, Met.	Mar-79
Mammoth Lakes	Mammoth Lakes	06-051-0001	PM10, Met.	Apr-84
Lee Vining	Mono Basin	06-051-0005	PM10, Met.	Jan-81
Simis Residence*	Mono Basin	06-027-0007	Met.	Nov-81
Mono Shore	Mono Basin	06-027-0011	PM10, Met.	Jan-00
White Mountain**	District	06-027-0002	PM10, Met.	Apr-06
NCORE	District	TBD	CO, SO2, NOy	TBD

\* PM10 monitoring discontinued August 2008.

\*\* District's Portable Monitoring Station berth. Located in Tecopa through June 2008.

## Draft Air Quality Monitoring Network Plan - March 2009

### Great Basin Unified Air Pollution Control District Site Specific Information

Site Name	Monitoring	Pollutants Monitored					North Latitude	West Longitude
	Frequency	R&P Partisol 2025 Sequential PM10/POC	BGI PQ200 Single Fltr PM10/POC	R&P TEOM Continuous PM10/POC	R&P Partisol 2025 Sequential PM2.5/POC	R&P TEOM Continuous PM2.5/POC		
Dirty Socks	Daily			1/2			36-19-33	117-57-19
Shell Cut	Daily			1/2			36-21-59	117-53-52
Flat Rock	Daily			1/2			36-25-12	117-50-12
Bill Stanley	Daily			1			36-21-43	118-00-39
Olancho	Daily			1/2			36-16-03	117-59-35
Lone Pine	Daily			1/4			36-36-30	118-03-15
North Beach	Daily			1/1			36-32-34	117-59-28
Lizard Tail	Daily			1/1			36-32-33	117-56-28
Keeler	Daily	1/6		1/4; 2/4,8***	2/1,2	1***	36-29-16	117-52-14
Coso Junction	Daily			1/4			36-02-40	117-56-44
Mammoth Lakes	Daily	1/5		1			37-38-53	118-59-24
Lee Vining	1-in-3	1/3					38-05-29	119-06-52
Simis Residence	1-in-3		4/3**				38-05-29	118-59-52
Mono Shore	Daily		12/2**	1**			38-04-15	118-56-88
White Mountain*	Daily	1		1			37-22-00	118-21-00
NCORE	Daily						37-21-38	118-19-46

\* District's Portable Monitoring Station berth. Located in Tecopa through June 2008.

\*\* Continuous PM10 monitor at Mono Shore started May 2008. Filter-based PM10 monitor discontinued at Mono Shore and Simis Residence August 2008.

\*\*\* To be installed third quarter 2009.

## **APPENDIX B**

### **NCore Station Monitoring Plan**